

## **Historic, Archive Document**

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# Hardwood Timber Trees

Eucalyptus Trees are natives of Tasmania and Australia, and many of the most valuable species find a congenial home in California. At least one species, **Eucalyptus Globulus**, Blue Gum, was first grown here from imported seed in 1853. The following list comprises most of the varieties of commercial value which have been well tested in California. For forest planting the young trees are usually grown 100 in a "flat" or shallow box, 18x18 inches square.

**EUCALYPTUS GLOBULUS**, Blue Gum, of very rapid growth; likes plenty of moisture, and succeeds best in the Bay or Coast Counties. Grown extensively for fuel, wind-breaks, etc., the older timber being very valuable for wagon work and many other purposes.

E. **ROSTRATA**, Red Gum. Rather slender growth, very hardy, and adapts itself to varied conditions of soil and climate, thriving best, however, where moisture is plentiful; very valuable for all hard-wood purposes, interior finishing, etc.; lasts well in the ground, and therefore useful for posts, ties, and poles; it is being more largely planted than any other.

E. **TERETICORNIS**, Forest Red Gum. Leaves broader, but, as it gets older, is very similar to rostrata.

E. **VIMINALIS**, Manna Gum. Very rapid grower, hardy, and adapted to the hot, interior valleys. Makes fair timber and very useful for fuel.

E. **RUDIS**, Desert Gum. Grows in hot, dry locations as well as in moist land; stands low temperature. Useful for timber or fuel. Forms a dense head, and is therefore desirable as a shade tree.

E. **CORYNOCLYX**, Sugar Gum. Best adapted to Coast or Bay Counties in well drained or hilly location. Makes very valuable hard-wood timber and is durable under ground. One of the very best street and ornamental trees.

E. **CREBRA**, Narrow-leaved Iron-bark. One of the hardest of hard-woods. Rather slow grower while young, but attaining great height in deep soil and warm climate; quite hardy.

E. **ROBUSTA**, Swamp Mahogany. So called because it thrives in wet, sour land, where nothing else of value will grow. Does not endure well the intense heat of the interior. Durable under ground, and therefore very valuable for posts, ties, etc.

E. **AMYGDALINA**, Giant Peppermint Gum. Grows well in wet lands, where it attains a great height. Quite hardy.

E. **DIVERSICOLOR**. One of the grandest and most valuable of all the Eucalypts. Grows to a great height. Fine hard-wood timber. Has been used for street paving in London, England, for many years.

E. **PILULARIS**, Blackbutt. A Coast tree. Very valuable for poles.

E. **SALIGNA**, Weeping Gum. Very valuable timber; suited to warm localities where there is not much frost.

E. **POLYANTHEMA**, Red Box. Stands intense heat, drought and severe frost. Very ornamental, and producing exceedingly valuable timber. This and corynocalyx would make a delightful contrast in foliage effect for street planting.

E. **CORNUTA**, Yate. Stands heat well, but not heavy frosts. A fine shade tree and furnishing very durable timber.

E. **OBLIQUA**, stringy bark; quick grower, producing best wood for flooring, shingles, etc., splits well. Grows well in light soils.

E. SIDEROPHLOIA. Broad-leaved iron-bark. Very hard, durable wood, stronger than hickory. Stands frost, but does not thrive in very hot, dry locations.

E. LEUCOXYLON. S. Australian blue gum, very hardy; grows well almost anywhere; timber durable and very strong.

E. SIDEROXYLON. Red iron-bark; wood dark red, hard and heavy, useful for very many purposes. Tree thrives in warm, dry locations, and endures frost.

Some other ornamental species are described in General List of Nursery stock.

### Newer Varieties.

EUCALYPTUS COCCIFERA, mountain peppermint gum. This species is frequent up to 4000 feet in Tasmania. A specimen has stood 23 degrees of frost in England without injury, and is now 78 feet in height. It has a tendency to a tall, central stem, frequently rising to 150 feet. The timber is heavy, reddish and extremely durable. It grows naturally amongst rocks and on poor gravelly soil at fairly high altitudes.

E. URNIGERA, urn-bearing gum. The foliage is denser than coccifera, otherwise very similar, though it can be readily identified by its capsules, or seed cups, which are shaped like a Grecian urn. It is found only in the cool, elevated regions of Tasmania.

E. MUELLERII, known in Tasmania as mountain red gum. Not to be confounded with E. Muelleriana, being but recently discovered, and growing only in the alpine regions of Tasmania, where it is said to attain a height of 200 feet, and often 100 feet without a single branch. The wood is very hard and heavy, though it has not been known long enough for proof of its durability to be established. It has withstood 26 degrees of frost without damage, and, according to Hooker, it is hardy at Kew Gardens, London, England.

E. GUNNII, cider gum. Large trees have withstood 32 degrees of frost in New Zealand and it is hardy in England and Scotland. It is found in alpine regions up to 5600 feet. Grows in almost any soil. Wood from the older trees is hard and durable. Tree of moderate size.

E. STUARTIANA, apple-scented gum. Fastest growing of all the very hardy eucalyptus. Prefers moist, sandy soil.

E. REGNANS, swamp gum of Tasmania. In vertical growth it exceeds the "Big Trees" of California, one specimen being found to measure 471 feet. It has resisted 22 degrees of frost. Prefers cool, sheltered gullies. One of the strongest of all the timbers but not lasting in the ground.

E. SIBERIANA, mountain ash. Quick growing. Splits well; good for shingles, etc.

These comprise most of the valuable species that are suitable for mountainous or cold regions, some of them having withstood zero weather without injury.

### Casuarina, (She-oak, Beefwood)

C. EQUISETIFOLIA.

C. STRICTA. These are hardy trees from New Zealand, furnishing very hard, red wood, valuable for mallets and other purposes where hardness and weight are desired. Thriving in dry locations. Excellent for fuel.

### Acacia

A. MELANOXYLON makes a most valuable timber; is used largely for pianos, billiard tables, gun stocks, etc.

BLUE GUM, E. Globulus, is often cut down by severe frosts while young; for this reason it is a little risky to plant it very extensively in the Sacramento or San Joaquin Valley.

THE RED GUM, E. Rostrata, is much hardier, but to get good growth and size must have plenty of moisture. It is a mistake to plant Eucalypts in poor soil and then expect good or quick returns from the investment.

FOREST RED GUM, *E. Tereticornis*, is said to grow straighter than *rostrata*, which depends, however, largely upon the soil and location. *Rostrata* will grow straight enough in good soil, and, if the location is very windy, it would be easy to plant a few rows of *rudis* as a wind-break. *Rudis* is strong growing and makes a denser head while young.

*Teriticornis* requires more care in the raising, and also transplanting to the field. We have lost more of these and *crebra* after transplanting in forest form than of any other.

SUGAR GUM, *E. Corynocalyx*, seems to stand a very dry soil best of all; it is a great drought resister, but does not like very severe frosts any better than Blue Gum. It should be planted along the Coast range, and in dry or well drained land.

THE SWAMP MAHOGANY, *E. Robusta*, prefers a very wet soil, even a swamp, and near the coast preferably. It is very good for posts, ties, and underground work.

RUDIS will thrive almost anywhere; it should be planted largely.

VIMINALIS grows fastest of all in our plantations; 1½ feet a month is nothing uncommon.

CREBRA is one of the hardest of all woods, hardy and adaptive, but likes moisture.

All these are safe, but the others should be tried; every planter should have his own experimental plot.

We pride ourselves on the vigor and robustness of our young Eucalypts and other hardwood trees.

All young seedlings, however, are liable to injury by the hot sun as well as by the early frosts, unless properly hardened in the early stages of their growth. *Eucalyptus* plants grown near the coast, where the air is invariably moist and cool, often receive a rude shock when transplanted to localities where extremes of climate are much greater. Grown where the summers are intensely hot and dry, it is necessary that the young trees be kept constantly shaded, or they will be burnt. This great heat, under shade induces to a "weedy" growth, not desirable when transplanting time comes. It would seem, then, that a climate where the tender seedlings may be exposed to the full rays of the sun, and where they will also face the sharp frosts of early winter should be, and is, an ideal location for the growing of these trees in large quantity. We move the plants constantly, from muslin shade over the seed boxes until well sprouted, to a lath shade, and then into the full sunshine, before transplanting. Then, after transplanting, to entire shade for one day, lath shade for a few days or a week, they then are exposed fully to the weather. There is nothing especially new in this, except that we find by an exact routine in thus handling the plants, all are hardened to stand great climatic extremes, and not a single plant wilts after transplanting. When the time comes for permanent planting in the field, we have a robust tree, inured alike to the burning rays of the sun or to many degrees of frost.

While there are several theories in regard to the planting in permanent forest form, we believe 6x6 feet, with the omitting of an occasional row for an avenue, to be the best distance. If different from this, let it be closer rather than wider apart. In every plantation of seedlings, some are always weaker than others. To take out adjoining trees will make them no stronger: they are weak constitutionally and will remain so.

Therefore, remove them and leave the stronger: it is a matter of the "survival of the fittest." The smaller ones can be used for tool handles, insulator pins, agricultural implements, etc., and nothing is lost.

Setting the plants is just as simple as setting out a tomato field, and the inclusive cost per acre may be \$25.00 or more, according to number, and method of handling. Always plant deeper when removing from box or pot; press firmly in the moist ground, and leave earth loose at surface. If soil is dry, or season late, water should be used, but never forget to keep surface loose.

We shall be glad to furnish any other information available, give estimates, etc., and we particularly invite those interested to call, and see our nurseries and forest plantations.

# Write for special prices on large lots

We do not grow "cheap" trees: it pays neither the grower or the planter. To grow Eucalyptus trees properly, so that they can be handled with minimum of loss, and planted in the open field, where they can, while young, endure sudden changes of weather and drying winds, they must be properly hardened in the nursery; this we do; but it cannot be done by growing the plants under lath screens or shade.

## Prices

In pots and by the 100 or 1,000 transplanted in flats.

	In Pots, Each		In Flats	
	2-3 ft.	3-4 and 4-5 ft.	100	1000
E. Globulus, Blue Gum .....	.15	.25	2.00	15.00
E. Rostrata, Red Gum .....	.15	.25	2.00	16.00
E. Tereticornis, Forest Red Gum .....	.15	.25		
E. Viminalis, Manna Gum .....	.15	.25	2.00	16.00
E. Rudis, Desert Gum .....	.15	.25	2.00	16.00
E. Corynocalyx, Sugar Gum .....	.15	.25	2.00	17.50
E. Crebra, Narrow-leaved Iron-bark ..	.15		2.00	17.50
E. Robusta, Swamp Mahogany .....	.15		2.00	16.00
E. Amygdalina, Giant Peppermint Gum While hardy, this variety does not grow well or adapt itself to California con- ditions .....		.25		
E. Diversicolor. This will be one of our leading timber trees. At present scarce .....		.25		3.50
E. Pilularis, Black-butt. This will be one of the most valuable for poles; in pots, .....		.25	3.50	25.00
E. Polyanthema, Red Box .....	.15	.25	2.00	17.50
E. Cornuta, Yate .....	in pots, .25			
E. Saligna .....	" "	.25		
E. Coccifera .....	" "	.25		
E. Siderophloia .....	" "	.25		
E. Urnigera .....	" "	.25		
E. Sideroxylon .....	" "	.25		
E. Muellerii .....	" "	.25		
E. Leucoxylon .....	" "	.25		2.50
E. Gunnii .....	" "	.25		3.50
E. Stuartiana .....	" "	.25		3.50
E. Regnans .....	" "	.25		3.50
E. Obliqua .....	" "	.25		
E. Siberiana, Mt. Ash .....	" "	.25		

A few thousand each of the following, 1½ years old, twice transplanted, 50 in a box, \$5.00 per 100, \$35.00 per 1000: These are very strong plants, 2 ft. or more, and well worth the price: E. Rostrata, E. Tereticornis, E. Corynocalyx, E. Viminalis, E. Amygdalina, E. Cornuta, E. Rudis.

Casuarina Stricta, large trees, in pots 25c each, in flats \$3.50 per 100.

C. Equisetifolia, large trees, in pots 25c each, in flats \$3.50 per 100.

Acacia Melanoxyylon, tall, rapid growing if in good land; yields a timber that is used for the finest furniture, gun stocks, etc. In pots 4-5 ft. 40c, 3-4 ft. 25c, in flats \$3.50 per 100.

We are always ready to make special rates for large orders, or will grow on contract.

Unless otherwise arranged, we charge for packing to cover cost of material used. Write us for further particulars.

**LEONARD COATES NURSERY CO., Inc.**

**MORGANHILL,**

**CALIFORNIA.**